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ABSTRACT

Suggestions and practical advice are offered for all members of a family in this guide on environmental stewardship. This publication contains information on a variety of home and work related environmental concerns. The environmental consequences of daily activities are discussed and specific recommendations are offered for saving energy, resources, money, and the environment. The packet contains individual information sheets on: (1) garbage and recycling; (2) energy conservation around the home; (3) alternatives to pesticides in the yard and garden; (4) transportation and the environment; (5) the workplace and the environment; (6) leisure time; and (7) environmental action suggestions. A conservation checklist provides suggestions for seasonal activities. The kit also offers a means to determine the level of environmental awareness through a self-scoring quiz. (ML)

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A Practical Family Kit on Saving Resources, Saving Money, and . . .

Saving the Environment

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Environment Canada
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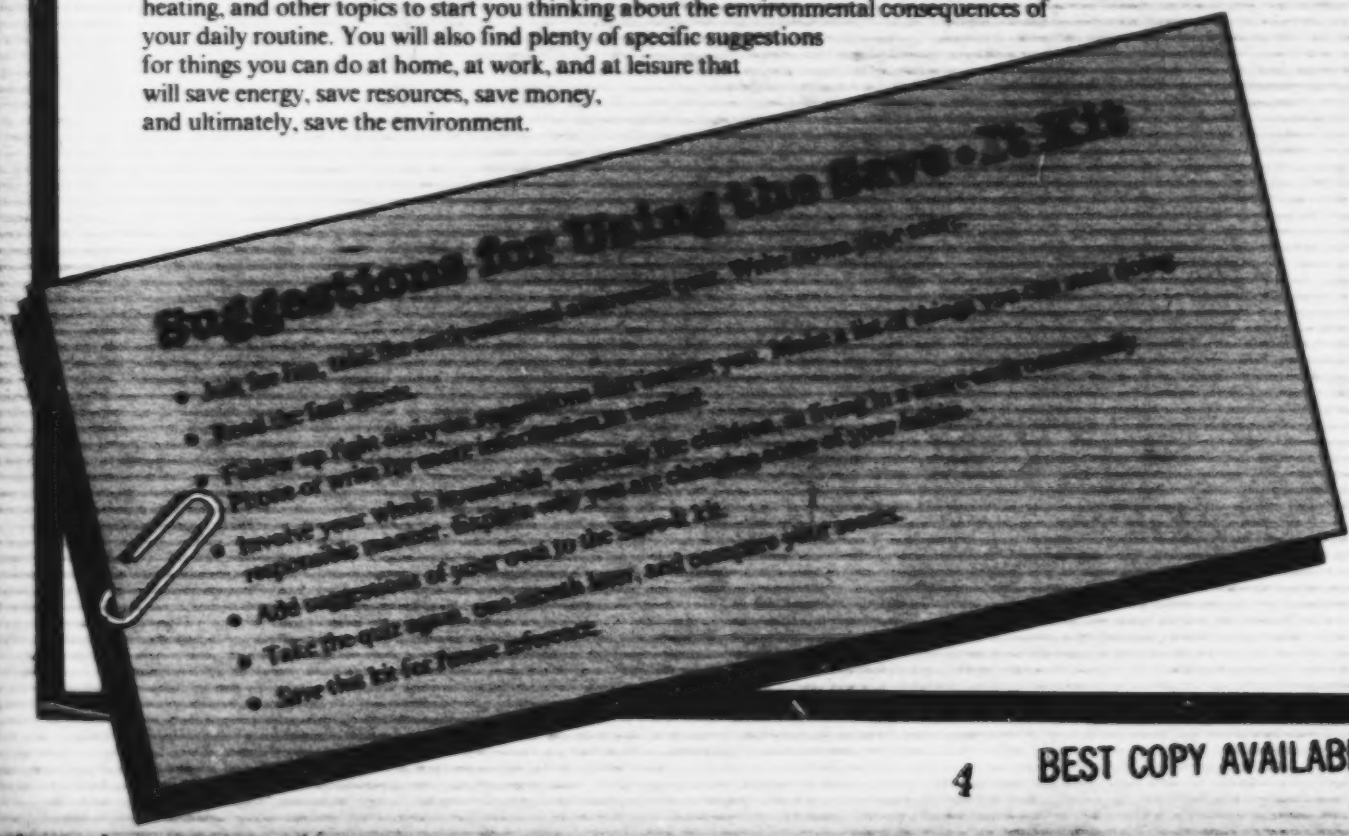
SAVE·IT!

The Savings are Yours

THE HEADLINES ABOUT ENVIRONMENTAL PROBLEMS ARE GRIM: Acid rain is killing lakes in central Canada and eating into the Parliament Buildings. Some animal and plant species are threatened with extinction. Our natural resources are being depleted. These are grave problems, but they are not so overwhelming as to be insoluble. As members of an industrialized society with a lifestyle emphasizing comfort, convenience, and a multitude of consumer goods, we have caused these environmental problems. As individuals who choose a lifestyle that emphasizes conservation, stewardship, and commitment to preserving environmental quality, we can also alleviate these problems.

YOU CAN MAKE A DIFFERENCE: Individual choices and actions do make a difference. Let's take one small example. Your family's supply of newspapers, put into a recycling bin instead of the garbage bin, can be reprocessed economically into insulation for a house that will cut energy losses without cutting down trees for raw material. Thus, there are savings in forest resources, nonrenewable energy resources (both from reduced home heating needs and less energy required in the insulation manufacturing process), and land resources, because landfill life is prolonged. Air pollution is reduced because less fuel is burned in the insulated house and less energy is required in the insulation manufacturing plant when a recycled product is used. Water pollution from the plant is also cut by using recycled paper, and land pollution is reduced because the newspapers don't end up in the dump. There are also economic savings for the homeowner. Such resource and environmental savings, multiplied by a million other households across Canada, will be significant. In fact, it is only by *individuals* acting in an environmentally responsible way that the environment can be saved.

THE SAVE·IT KIT: Living more in harmony with the environment is not difficult. It requires awareness of the consequences of our actions plus readiness to make small or moderate changes in our daily routine. In this Save-It kit you will find information about the environmental effects of household garbage, pesticides, wasteful home heating, and other topics to start you thinking about the environmental consequences of your daily routine. You will also find plenty of specific suggestions for things you can do at home, at work, and at leisure that will save energy, save resources, save money, and ultimately, save the environment.



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Contents

- Garbage — Save It!
- Energy Conservation Around the Home
- Alternatives to Pesticides in the Yard and Garden
- Getting from Here to There
- The Workplace
- At Your Leisure
- Get Involved

PLUS·MORE!

Did You Know...

- between 1980 and 1983 worldwide energy consumption fell 2%, with conservation efforts accounting for one-half to three-quarters of the reduction.
- depending on how your home is presently insulated and to what degree you are willing to upgrade it, you can cut your fuel bills by as much as 50%.
- recycling one tonne of waste paper saves 17 mature trees.
- one family's yearly supply of newspapers can be recycled into almost enough insulation for one house.
- using processed scrap iron instead of iron ore in the manufacture of steel results in an 86% reduction in air pollution and a 76% reduction in water pollution.
- you can control common lawn and garden insects without chemical pesticides.
- a properly tuned and maintained car burns up to 15% less fuel than a poorly maintained vehicle.
- pressure from ordinary citizens has resulted in the passage of environmental protection legislation such as the Environmental Contaminants Act.
- in an opinion poll eight Canadians in 10 said they were willing to pay higher prices for goods in order to protect the environment from industrial pollution (CROP Report, April 1983).
- the swift fox, a species once extinct in Canada, is making a comeback thanks to federal and provincial wildlife biologists who have reintroduced it to its former habitat in Alberta and Saskatchewan.
- the endangered peregrine falcon is returning to Canadian landscapes as a result of a breeding program in which peregrines are raised and then released into the wild. In 1970 only 15 pairs of peregrines were left in Canada; as of 1983, 475 peregrines had been reintroduced to the wild.

SAVE·IT!

Did you know that you can . . .

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SAVE·IT!

Garbage — Save It!

When we think of the threats we have to save our environment from, the images that come to mind are often those of huge factories belching smoke into the sky or oil tankers spewing oily sludge onto beaches. But how many thoughts do we spare for the garbage that each of us discards every day of the year?

Each year the average Canadian throws away 495 kg of garbage at home, work, or school. That's 1.98 tonnes a year for a family of four — a lot of garbage. It's expensive to get rid of — $1.5 billion is spent each year in Canada on garbage disposal — and it can also cause serious environmental problems.

The Problem

Most residential garbage is taken to large landfill sites where it is dumped, compacted, and covered with earth. But landfill sites are unattractive and use land that could often be put to better use, such as farming. More importantly, landfill sites pose the danger of contaminating rivers, lakes, and groundwater with toxic chemicals that are leached from the site.

Some garbage is burned. This reduces the amount of waste that has to be dumped into landfill sites, but destroys valuable materials that could be recycled and can cause air pollution and associated health hazards.

And the problem is more serious. Not only do we endanger our environment in disposing of our garbage, but vast amounts of energy and resources go into producing man-made materials that end up as garbage. Each year the average Canadian uses 18,000 kg of petroleum, coal, natural gas, and uranium to produce goods, fuel, and heat for homes, cars, and industrial materials. Most of these resources are used in the manufacture of a product that is used once, then discarded. The environmental effects of energy extraction and refining are discussed in the fact sheet "Energy Conservation around the Home."

Solving the Problem

Household or consumer garbage makes up more than 50% of all solid waste collected in Canada. That waste can be substantially reduced by recycling and reusing a wide range of household products. In other words, SAVE IT!

Recycling

Nature wastes nothing, and although we can never be as efficient in our use of products as nature, recycling enables us to take materials that would normally become waste and return them to useful production. This reduces the problem of waste disposal, saves virgin materials, and minimizes the pollution resulting from refining.

There are hundreds of items in our everyday garbage that are potentially recyclable — paper, glass, metals, lubricating oils, cloth, plastics, rubber, and organic materials. Here's what you can do to help reduce your garbage through recycling:

- Separate your garbage and sort out those materials that can be recycled.
- Save newspapers and magazines and take them to a paper bin. Check your newspaper under community notices for the bin nearest you. One family's yearly supply of newspapers can be recycled into almost enough insulation for one house.
- Save your bottles and cans and take them to a container depot for a refund. Check the Yellow Pages for addresses.
- Take your used automobile oil to special collection tanks in your province or check with service stations to see if they will accept used oil.
- Create a compost pile in your yard from waste food products, grass clippings, leaves, etc. for use as fertilizer on your lawn and garden.
- Look around in your community for other materials that can be returned for recycling.

Reuse

Many items in the home can be reused, thus saving money, reducing garbage, and preventing the environmental damage caused by replacing those materials thrown away. Here's what you can do to help reduce your garbage through reuse:

- Before discarding anything take another look at it to see if it can be used again for the same purpose or put to another use.
- Plastic containers, glass jars, and cans can be saved for a variety of storage purposes.
- Boxes, paper bags, and plastic bags can be saved for storage, shopping, or wrapping your garbage (instead of buying garbage bags).
- Wrapping paper, ribbon, and string can

be used a second time.
- Save old clothes for local collection centers, second-hand stores, church rummage sales, etc.
- Use your imagination to devise other creative uses for many of the things you now throw away; for example, bookshelves out of old bricks and lumber, flower pots out of cans and plastic containers.
- Recirculate books and magazines to schools, hospitals, charity book bazaars, or second-hand book stores.

Safe Disposal

While we can substantially reduce our waste material through recycling and reuse, we will still always have garbage. The prime consideration then becomes safe and efficient disposal. Here's what you can do to minimize the potential for environmental damage and safely dispose of your garbage:
- Always follow the instructions on pesticide containers for proper disposal. Never dump leftover pesticides into sewers or water bodies or onto the ground.
- Do not burn waste materials without first checking with provincial environment departments. Burning of many materials could be hazardous to the environment or to human health.
- Take old automobiles, appliances, building products, etc. to scrap dealers or other proper disposal areas for recycling.
- Never dispose of potentially hazardous materials such as laboratory chemicals, photographic wastes, special cleaning fluids, and medicinal products without first checking with local environment authorities for safe disposal methods.

Other Solutions

Recycling, reuse, and safe disposal can help reduce the waste disposal problem and save our environment. However, there are other important actions you can take to attack the source of the problem. You can help cut down on the manufacture of products and materials that contribute to the waste problem by refusing to buy materials that just end up in the garbage can. Here's how you can reduce garbage pollution and save money in your shopping:
- Avoid buying products in nonreturnable bottles or cans.
- Buy material in bulk when possible and avoid small packages. Bulk food items can be stored in the cans and jars you have saved.
- Avoid products that are overpackaged.
- Buy durable products that will last a long time.
- Look for products that bear the recycling symbol.

By shopping wisely you can demonstrate to manufacturers that consumers prefer sensibly packaged goods. It is also important to demonstrate to elected officials at all levels that taxpayers want safe landfills, collection depots for recyclable materials, and laws that require reuse and recycling of valuable resources. It took legislation to require standardization and reuse of beverage bottles and cans, for example. Use some of the suggestions in the fact sheet "Get Involved" for ideas on how to press governments for action.

Conclusion

Garbage is more than just a household nuisance. It's an environmental threat, but it's one that every household can do something about. By recycling and reusing items, safely disposing of waste, refusing to buy wastefully packaged consumer goods, and urging governments for recycling legislation, we can save our environment from air, water, and land pollution. The solution is as close as our garbage cans.

Contacts

More information on recycling and waste disposal can be obtained from:

Alberta
Communications Branch
Alberta Environment
9820 - 106 Street
Edmonton, Alberta
T5K 2J6
(403) 427-6267

Environmental Protection Service
Environment Canada
804, 9942 - 108 Street
Edmonton, Alberta
T5K 2J5
(403) 420-2599

Saskatchewan
Public Information and Education Branch
Saskatchewan Environment
1855 Victoria Avenue
Regina, Saskatchewan
(306) 565-6513

Environmental Protection Service
Environment Canada
241, 1901 Victoria Avenue
Regina, Saskatchewan
S4P 3R4
(306) 359-6464

Manitoba
Community Relations Branch
Manitoba Environment
960 - 330 St. Mary Avenue
Winnipeg, Manitoba
R3C 3Z5
(204) 944-5763

Environmental Protection Service
Environment Canada
800, 275 Portage Avenue
Winnipeg, Manitoba
R3B 2B3
(204) 949-2961

Northwest Territories
Government of the Northwest Territories
Pollution Control Division
Department of Renewable Resources
Yellowknife, N.W.T.
X1A 2L9
(403) 920-8044

Environmental Protection Service
Environment Canada
Bellanca Building
P.O. Box 370
Yellowknife, N.W.T.
X1A 2N3
(403) 873-3456

Inuvik - (403) 979-3460

Frobisher Bay - (403) 979-3649

Check your local telephone directory under listings such as "Recycling," "Bottle Depots," "Waste Disposal," and "Garbage Collection" for telephone numbers and addresses in your area.

Public Affairs
Environment Canada
804, 9942 - 108 Street
Edmonton, Alberta
T5K 2J5
(403) 420-2545

Free Publications

Urban Home Garden Composting. 1984. Leaflet available from Canadian Forestry Service, Environment Canada, 5320 - 122 St., Edmonton, Alberta, T6H 3S5, (403) 435-7210.

Recycling in Alberta. 1979. Waste Management Branch, Alberta Environment. (available from Communications Branch, Alberta Environment)

1984

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Energy Conservation around the Home

The average homeowner spends a considerable amount of money on electricity and heating fuel per year. Much of that money literally blows out the window.

Did You Know . . . .

You can significantly cut your energy waste by taking a few simple steps:

- A 40-watt fluorescent bulb produces up to four times more light than a 100-watt incandescent bulb and lasts 10 times longer — energy and money saved.
- A stew cooked in the oven for three hours uses 3½ times more energy than one cooked for 10 hours in a slow cooker. Better yet, you can cook a stew in a pressure cooker in 12 minutes — energy and money saved.
- It takes four times as long to cook food in a conventional oven than in a microwave — energy and money saved.
- It takes a maximum of four hours to preheat your car's engine at any outdoor temperature. A car plugged in all night wastes about 25¢ of energy a night, or almost $8.00 a month. Buy yourself a timer or a thermostatically controlled extension cord that sends power to the block heater only when the engine needs heating — energy and money saved.
- Well-fitting storm windows and doors will reduce heat loss up to 15% and prevent cooling loss in summer — energy and money saved.
- Electric utilities generate and distribute power to meet the peak demands of the public. The period of peak demand usually occurs on cold winter evenings between 5:00 and 7:00 p.m. By cutting down on electrical use during the "peak load" period, demand on the electrical system will decrease and the need for additional facilities may be delayed — energy and money saved.

The main culprits of energy waste in the home are poorly insulated basements, drafty houses, and careless energy use. A few no-cost measures such as turning down the furnace at night, lowering the water heater thermostat, using heat deflectors over hot-air registers, shutting off lights and appliances in unoccupied rooms, and keeping doors and windows tightly closed will help you battle energy waste.

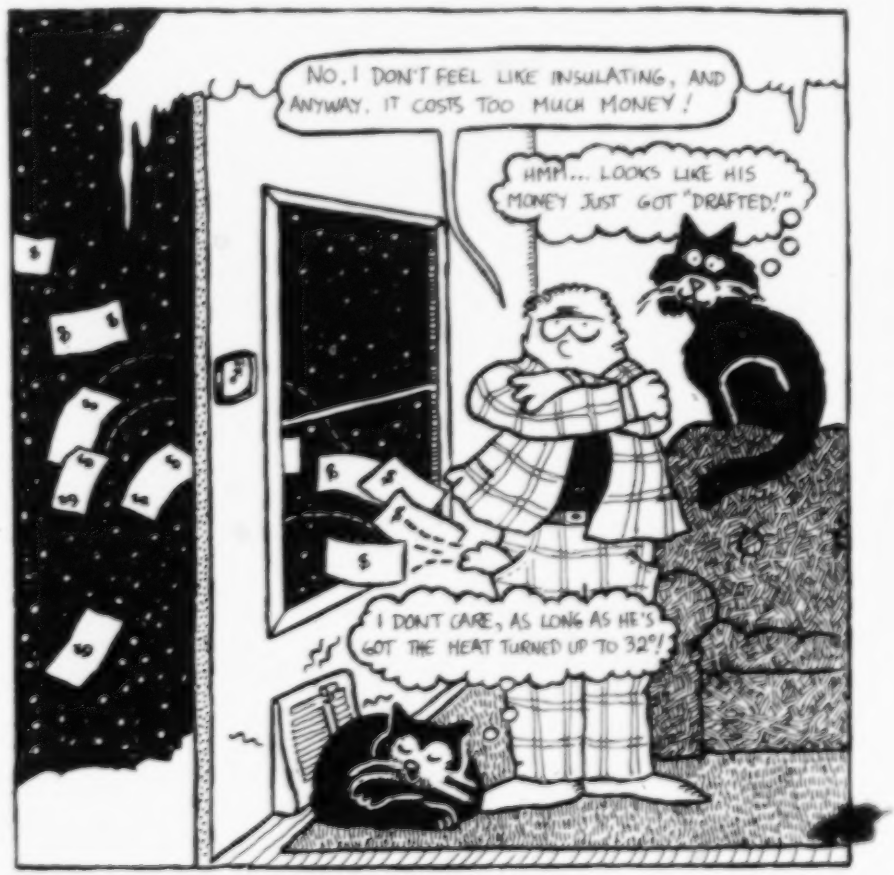
Other measures such as insulating basements, changing furnace filters, caulking windows, and insulating electrical outlets on outside walls will cost money initially but will pay for themselves in a relatively short time.

Over the longer term, a low-energy home (one built to be as energy-efficient as possible) can save the homeowner 65-80% on energy bills. The initial cost of $2000-$8000 can be recouped in 7-10 years.

It is clear from these examples that there are many ways to save energy and money around the home. But there are other reasons just as compelling as the economic ones for making home energy conservation a priority.

Environmental Impact of Energy Development

The energy required to heat our homes and power our appliances is produced by hydroelectric dams, gas refineries, and coal-burning generators and transmitted to us by power lines or pipelines. All of these energy extraction, refining, and transmission projects have effects on the environment. For example, natural gas processing and the burning of fossil fuels such as coal and petroleum products emit sulphur dioxide and nitrogen oxides into the air. These two pollutants are chemically transformed in the atmosphere and produce acid precipitation. Acid rain reduces soil fertility, kills fish and plant life in lakes, kills forests, and damages man-made struc-


NO, I DON'T FEEL LIKE INSULATING, AND ANYWAY, IT COSTS TOO MUCH MONEY!
HMM... LOOKS LIKE HIS MONEY JUST GOT "DRAFTED!"
I DON'T CARE, AS LONG AS HE'S GOT THE HEAT TURNED UP TO 32°!

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tures. It is considered a global environmental threat.

A gas well blowout or a poorly controlled hydrocarbon production facility can release potentially lethal hydrogen sulphide into the atmosphere. Some of the environmental risks include reduced soil productivity, damage to vegetation and wildlife, and health hazards to humans.

Land modification, as a result of excavation by strip mining, construction of a pipeline, or flooding by a hydroelectric dam, is another direct impact on our environment. The land surface can be so dramatically altered that bird and animal migration routes and fish movements for spawning are disrupted, wildlife habitats are lost, and water pollution is increased.

There are also changes imposed on human activities, such as temporary community disruption during the construction phase of a large project or the possible elimination of a resource on which a particular lifestyle is dependent, such as fish and furbearing animals in Northern communities, or agricultural land in rural communities.

What Can You Do?

Energy-conserving measures taken around the home can save you money, extend the life of our declining nonrenewable resources, and save the environment from dangers such as acid rain. The suggestions listed earlier are just a few of the many measures available. To find out what else you can do, first update your knowledge of energy conservation. There is an abundance of free information available from utility companies and federal and provincial departments of energy or consumer affairs. High schools and community colleges offer night courses on energy conservation, and there are even toll-free lines for getting fast answers to energy conservation questions. Some utility companies will conduct an energy audit of your house for a modest fee.

Then, do it. Caulk your windows, remind your children to turn off lights when they leave a room, and make energy saving — and environment saving — a family priority. The savings realized in your household can make a difference.

Free Publications

Enersave Questionnaire (A personal home heating analysis that will pinpoint exactly how much energy and money you'll save by improving your insulation), Enerfacts, Billpayer's Guide to Heating Systems, Air Vapour Barriers, Low Energy Home Designs, Energy Efficient Housing: A Prairie Approach, and a variety of other fact sheets are available from Energy, Mines and Resources Canada:

St. Albert, Alberta 420-4095
Elsewhere in Alberta (toll-free) 1-800-222-6477
Saskatoon, Saskatchewan 665-4532
Elsewhere in Saskatchewan (toll-free) 1-800-667-9719
Winnipeg, Manitoba 949-4256
Elsewhere in Manitoba (toll-free) 1-800-542-6928
Yellowknife, N.W.T. 920-8475
Elsewhere in NWT (toll-free) dial "Operator" and ask for Zenith 2828

Energuide Directory (information on all appliances tested in accordance with Consumer Standards Association.) Available from Consumer and Corporate Affairs Canada:

Edmonton, Alberta (403) 420-2481
Saskatoon, Saskatchewan (306) 665-4292
Regina, Saskatchewan (306) 359-5375
Winnipeg, Manitoba (204) 949-2366

Contacts

Alberta
Energy Conservation Branch
Alberta Energy and Natural Resources
10010 - 106 Street
Highfield Place
Edmonton, Alberta
T5J 3L8
(403) 427-5200

Alberta Research Council
Solar and Wind Energy Research Program
Information Centre
4445 Calgary Trail South
Edmonton, Alberta
T6H 5R7
(403) 438-1666

Rural Education Development Association
14815 - 119 Avenue
Edmonton, Alberta
T5L 2N9
(offers Farm Home Planning Course)
(403) 451-5850

Edmonton Power
Home Economist
Customer Service Department
800 Continental Bank Building
10250 - 101 Street
Edmonton, Alberta
T5J 3P4
(403) 428-4286

Alberta Power
Energy Management
10040 - 104 Street
Edmonton, Alberta
T5J 2V6
(403) 420-7610

Northwestern Utilities Limited
10572 - 113 Street
Edmonton, Alberta
T5H 2M5
(403) 420-7791

Transalta Utilities
Public Affairs Department
6th Floor
10150 - 100 Street
Edmonton, Alberta
T5J 0P6
(403) 422-6272

Canadian Western Natural Gas
909 - 11th Avenue S.W.
Calgary, Alberta
T2R 1L8
(403) 244-0859

Home Economist
City of Calgary Electric System
Customer Service Department
P.O. Box 2100
Calgary, Alberta
T2P 2M5
(403) 268-2921

Saskatchewan
Saskatchewan Power Corporation
Customer Advisory Services
2025 Victoria Avenue
Regina, Saskatchewan
S4P 0S1
(306) 56.-3180
(306) 566-3189
(306) 566-3191

Manitoba
Energy Information Centre
Manitoba Energy and Mines
500 Portage Avenue
Winnipeg, Manitoba
R3C 0V8
(204) 944-4154

Solar Energy Society of Canada
Canadian Headquarters
Rm. 698, 870 Cambridge Street
Winnipeg, Manitoba
R3M 3H5
(204) 284-3076

Greater Winnipeg Gas
Marketing Department
285 Notre Dame Avenue
Winnipeg, Manitoba
R3B 1N9
(204) 986-3794

Manitoba Hydro
Energy Communications Section
P.O. Box 815
Winnipeg, Manitoba
R3C 2P4
(204) 474-3372

Winnipeg Hydro
Public Relations
Administrative Building
5th Floor
510 Main Street
Winnipeg, Manitoba
R3B 1C1
(204) 946-0270

Northwest Territories
ICG-Plains Western
P.O. Box 2578
Yellowknife, N.W.T.
X1A 2P9
(403) 873-4697

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Alternatives to Pesticides in the Yard and Garden

Many people expect instant solutions when it comes to controlling insects and weeds in their gardens and back yards: simply spray a pesticide and the problem is solved. Unfortunately, it's not as simple as that. Pesticides are poisons, otherwise they wouldn't work.

Like any poison around the home, pesticides are best used when other means fail, and only with extreme caution. Have you ever stopped to consider that for some pest problems you may not need a pesticide? On the small scale of yards and family gardens, nonchemical pest control can be a feasible alternative. It can also save you money. By using household articles such as garden shears to control insects you can save your money — and your environment.

Environmental Risks of Pesticides

1. Pesticides are toxic to many forms of life other than target pests. Honeybees and useful predatory insects such as ladybugs can be killed when pesticides are applied.
2. Pesticide residues can accumulate in the food chain, causing damage to birds, fish, and other forms of animal life. In many cases these side effects are not immediately apparent, but show up later; for example, in the abnormal eggs laid by birds that have fed on pesticide-treated insects. Ultimately some side effects may extend to human life as well.
3. Extensive use of pesticides in agriculture has led to the development of genetically resistant insect and weed species that are no longer affected by some commonly used pesticides.
4. Empty pesticide containers become hazardous waste that requires special handling and treatment.

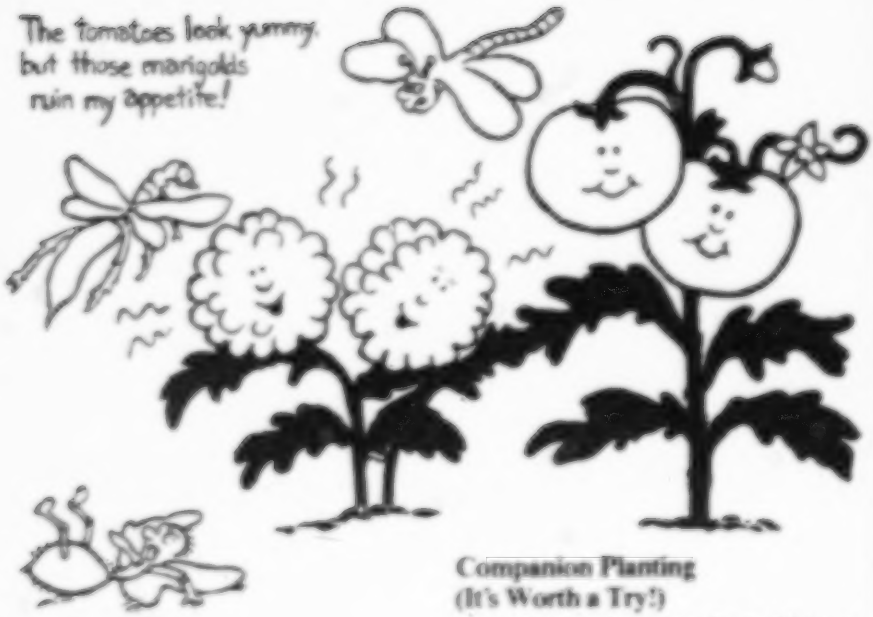
Cutting down on the use of pesticides thus reduces the contaminants being released into the soil, water, and air, avoids contributing to the problem of hazardous wastes, and lessens the risk of exposing humans and animals to dangerous chemicals.

Alternative Methods of Pest Control

Trees and Shrubs

In the majority of cases, damage by insect pests is more troubling to the homeowner than it is to the plant. Most trees and shrubs can survive infestation by pests. And there are several ways to control pests without resorting to chemical pesticides.

- Pick off infested leaves by hand and dispose of them. This will control moderate infestations of such pests as the *lilac leaf miner, leaf rollers,* and *spruce budworm.*
- In late fall or early spring, prune off branches containing the greyish egg bands of the *forest tent caterpillar.* Use a knife to scrape the egg bands off limbs too large to prune.
- If *forest tent caterpillar* eggs have hatched, pick off larvae by hand when they cluster together in late evening or on cool days.
- Using a garden hose, direct a strong stream of water against trees and shrubs to dislodge insects. This is effective against *spider mites* and *pear slugs,* as well as other pests.
- If a pesticide is needed, try a biodegradable product such as the biological insecticide *Bacillus thuringiensis* (the label will say "thuricide" or "biological insecticide") or a botanical containing pyrethrum. Pyrethrum is a natural substance derived from flowers of the chrysanthemum family. Insecticidal soap is another commercial preparation that is quite safe to use.



Lawns

2,4-D and its cousin compounds are commonly used to rid lawns of dandelions and thistles. These compounds are biological poisons and may remain on the lawn for a number of weeks.

- Whenever possible, dig out the weeds by hand.
- Keep your lawn well watered and fertilized. A healthy lawn is a very effective deterrent to weeds.

Vegetable Gardens

- Pick off infested leaves by hand to control insects such as the *Colorado potato beetle*.
- To keep *cutworms* away from tomatoes, peas, cabbages, and beans, remove both ends from tin cans and sink them around the bedding plants.
- Place tar-covered paper around the base of cabbage plants to prevent *cabbage flies* from laying their eggs.
- Scatter onions throughout the garden instead of planting them in rows so *root maggots* can't simply travel from plant to plant.
- Rotate crops each year to prevent the soil from being depleted of nutrients and to control soil-borne diseases.
- Use an insecticidal soap solution to dislodge or suffocate insects.
- Use a biodegradable product such as thuricide, or biological insecticide, to control *caterpillars* attacking cabbage, cauliflower, and broccoli.
- Cultivate your garden. Regular hoeing will control weeds and keep plants healthy and more resistant to insects.
- Consult gardening books and magazines for more suggestions.

Companion Planting (It's Worth a Try!)

Vegetables and flowers have different odors and root secretions that are believed to affect the activity of insects and the growth of nearby plants. Research is just beginning to show how this works. The herb basil, for example, secretes oils whose chemistry interferes with insect hormones.

- Plant marigolds and other members of the chrysanthemum family throughout the garden to protect tomatoes, beans, and other plants from a variety of insects.
- Sow aromatic plants at intervals throughout the garden to ward off pests. Chives, dill, nasturtiums, geraniums, thyme, basil, celery, mint, garlic, and onions are examples of aromatic plants often grown for their own value anyway.
- Basil is said to keep tomatoes free from infestation, and savory to protect beans. Onions or garlic sowed next to carrots will foil the carrot fly.
- Plant horseradish at the corners of a potato patch, and plant beans near potatoes to repel the Colorado potato beetle.
- Consult gardening books and magazines.

Finally

Remember that pesticides only relieve symptoms . . . they are not a cure-all. Insects will never be eradicated. Instead, why not tolerate minor flaws and blemishes on fruit and vegetation? Think of your yard and garden as a small portion of nature in which every living thing has its place. Oftentimes nature provides its own pest control in the form of birds or other insects that feed on the species we consider nuisances. But if you do want to give nature a helping hand, consider the alternatives before reaching for a spray can.

Suggested Reading

Forsyth, A. 1981. *The Botanical Arsenal*. pp. 49-51 in Harrowsmith, vol. VI, no. 37. August.

———. 1981. *Flower Power Reconsidered*. pp. 44-49 in Harrowsmith, vol. VI, no. 37. August.

———. 1983. *Predator Patches*. pp. 48-53 in Harrowsmith, vol. VIII, no. 49 June/July.

Hall, R.H. 1981. *A New Approach to Pest Control in Canada*. Canadian Environmental Advisory Council. Ottawa. Report no. 10.

Organic Gardening. Rodale Press Inc. Emmaus, Penn. (monthly magazine).

Philbrick, H. and J. 1974. *The Bug Book. Harmless Insect Controls*. Garden Way Publishing. Charlotte, Vermont, U.S.A.

Riotte, L. 1975. *Carrots Love Tomatoes. Secrets of Companion Planting for Successful Gardening*. Garden Way Publishing. Charlotte, Vermont, U.S.A.

Zimmerman, L. 1978. *Strange Bedfellows: the Voodoo and Science of Companion Planting*. pp. 73-77 in the Harrowsmith Reader. Camden House Publishing Limited.

Contacts

Edmonton, Alberta

Muttart Conservatory, 98 Avenue and 96A Street. The Muttart Conservatory offers horticultural advice, including information on companion planting, controlling insects by means of traps and barriers, and recipes for household insecticides, over the phone (428-7817). It also holds plant clinics on most Saturdays, but call first to make sure.

Saskatoon, Saskatchewan

The Meewasin Garden Line (343-6339, 343-5781) gives free advice on insect control, including alternatives to chemicals where feasible. The Garden Line is operated by the University of Saskatchewan Horticulture Department and the Meewasin Valley Authority.

Winnipeg, Manitoba

The Bug Line (885-4467), operated by the City of Winnipeg Parks and Recreation Department, provides insect control information. While most of the recommended treatments rely on chemical pesticides, alternative methods are offered where possible.

You can also get free information from:

Canadian Forestry Service
Environment Canada
5320 - 122 Street
Edmonton, Alberta
T6H 3S5
(403) 435-7210

Contaminants Section
Environmental Protection Service
Environment Canada
804, 9942 - 108 Street
Edmonton, Alberta
T5K 2J5
(403) 420-2575

Public Affairs
Environment Canada
804, 9942 - 108 Street
Edmonton, Alberta
T5K 2J5
(403) 420-2545

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Getting From Here to There

To most North Americans, transportation automatically means the car. We love our vehicles, even though we know that they're expensive to buy and maintain and the price of gasoline keeps going up. What we may not also realize is that the car has just as big an impact on our environment as it does on our wallets.

The Car and the Environment

The gasoline-powered vehicle is a major air polluter. Among the noxious chemicals emitted from the tailpipes of millions of cars and trucks every day are nitrogen oxides, sulphur oxides, hydrocarbons, carbon monoxide, and metallic compounds. A recent study found that 10 million tonnes of air pollutants entered the atmosphere in one year from automobile exhausts in Canada. In fact, chemicals emitted by the automobile make up almost 30% of the total airborne pollution from all sources in Canada.

Two of the car's air pollutants in particular are linked to grave environmental and health problems. Nitrogen oxides from the tailpipes of cars and trucks are one of the precursors of acid rain. In the atmosphere nitrogen oxides undergo chemical transformations and combine with moisture to produce acid precipitation. About half of the nitrogen oxides emitted in Canada come from automobile exhausts. Acid rain kills fish and plant life in lakes, kills forests, reduces soil fertility, damages manmade structures, and may have other harmful effects not yet known.

Another very toxic element in automobile exhaust is lead. Automobiles are responsible for roughly 68% of the total of 410 million kg of lead that are emitted into the earth's atmosphere every year. In Canada, automobiles are the largest single source of lead emissions.

Chronic exposure to low levels of lead in the environment causes symptoms such as fatigue, headaches, poor appetite, clumsiness, and diminished mental capability. In recent years there has been increasing concern over neurological damage, affecting both intelligence and motor activity, caused by minute amounts of lead taken into the body over several years. Children from the fetal stage to about three years old are the most susceptible to the adverse effects of lead.

Other environmental effects of the car include the impact of the entire transportation system — roads and highways, as well as the refineries and pipelines that supply fuel — on the aesthetic value of the landscape and the amount of land, sometimes good farmland, ceded to the needs of the car. Sprawling cities are designed to accomodate cars, not human beings. The economic costs of such impacts have never been computed.

The total environmental, safety, and economic costs of using the family car make it worthwhile to take a look at whether the car is indeed the best means of meeting all our transportation needs. While most of us don't want to give up our cars, we can try to use them more selectively. We don't have to sit in a seemingly endless traffic jam, get involved in a frustrating fender bender or be stranded somewhere with a stalled car. There *are* other options.

Alternatives

Public Transit — Public transportation offers several advantages over private transportation. There are no worries about traffic, road conditions, or finding a parking spot; instead, you are able to relax, read, or even catch up on some work. Public transit saves time and money and it's energy efficient, too. Instead of 40 individuals each driving his or her own car to work, burning gasoline, and emptying pollution out the exhaust, one bus can carry the same number of passengers to within a block or two of their desired destination at much less cost to the environment. Public transit is not a solution to all transportation needs, but it is a good choice for getting back and forth to work in urban areas.

Car Pool — You can reduce commuting expenses to work, save energy, and cut down on air pollution by sharing a ride with friends or colleagues who live and work in the same areas as you do. You will all save on gasoline bills, parking, maintenance, and, possibly, auto insurance costs. Car pools can be arranged so that one person drives his vehicle each day while others ride and share expenses, or so that each person in the car pool takes his vehicle in turn to work.

If you work in a plant or office with many fellow workers you could ask your employer to assist in matching those employees who wish to share rides.

Van Pool — A van pool provides transportation to and from work for up to 15 persons in a passenger van. Each passenger pays a monthly fee to cover gasoline and maintenance expenses. The driver, also a commuter, is compensated for driving by means of free commuter trips plus use of the van after work hours.

Most van pools are organized by the employer. Others are organized by individuals, groups of employees or unions, or third parties such as a leasing firm or credit union. Suggest to your union or coffee group at work that it organize a van pool.

Muscle Power — If you bicycle to work when weather conditions permit you will save money and energy and improve your physical fitness. You will also whiz through traffic jams during rush hours.

And don't forget walking! If you live within two or three kilometres of work, try walking whenever the weather is mild enough. In addition, walking or bicycling is the sensible alternative when you have to go to the corner store only a few blocks away. Bicycling and walking are completely nonpolluting methods of transportation.

Drive Environmentally

When you do drive a car, you can substantially cut down on polluting exhaust emissions by keeping your car in tune and by driving properly. The less fuel consumed by an engine, the less pollution emitted, and the more savings to the owner and to the environment.

A car that is well maintained will burn less gasoline — as much as 15% less — than a poorly maintained car and reduce the amount of pollution emitted. Regular tune-ups, periodic wheel alignment, proper inflation of tires, and proper lubrication scheduled according to the owner's manual will all reduce gasoline consumption.

If your car takes unleaded gas, use only unleaded fuel. Burning leaded gas in an engine designed to run on unleaded fuel prevents the pollution-controlling catalytic converter from working properly, fouls spark plugs, and accelerates the corrosion of the exhaust system. A misfunctioning catalytic converter allows much higher levels of hydrocarbons and carbon monoxide in engine exhaust. And of course, leaded gas adds to the problem of lead pollution.

Good driving habits also go a long way toward preventing air pollution.

- Drive at moderate speeds. High speeds increase gas consumption. Driving at 90 km/h instead of 115 km/h burns 20% less fuel and is probably safer.
- Avoid jack-rabbit starts. Smooth starts and moderate acceleration reduce fuel consumption.
- Don't carry around unnecessary extra weight in the trunk.
- Turn off the engine while you are waiting for a passenger.
- Use a block heater to warm your engine for an hour or two before starting it in cold weather. The warmer the engine at start-up, the less pollution blown out of the tailpipe.
- If you do not use a block heater, do not idle the engine too long when warming it up. It should idle just for a matter of seconds, until the engine runs smoothly.

Finally, the motorist concerned about pollution can press for and support government legislation to reduce air pollution from vehicles. A phased reduction in the amount of lead permitted in leaded gasoline was announced by the federal government in 1983. Canada still has a distance to go before its standards for other automobile emissions are as stringent as those in countries such as the United States. At present Canadian cars are permitted to emit three times more nitrogen oxides than American cars. Use some of the suggestions in "Getting Involved" for letting legislators know your views on reducing air pollution from cars.

Conclusion

By taking a close look at our use of the car and selecting other less-polluting modes of transport where feasible, by keeping our car properly tuned and using good driving habits when we do drive, we can get from here to there in a way that saves fuel, saves money, and saves the environment. Let's make the short car trip with a single occupant a thing of the past.

Contacts

Alberta
Environmental Protection Service
Environment Canada
804, 9942 - 108 Street
Edmonton, Alberta
T5K 2J5
(403) 420-2599

Alberta Energy and Natural Resources
9920 - 108 Street
Bramalea Building
Edmonton, Alberta
T5K 2M4
(403) 427-3590

Saskatchewan
Environmental Protection Service
Environment Canada
241, 1901 Victoria Avenue
Regina, Saskatchewan
(306) 359-6464

Saskatchewan Energy and Mines
1914 Hamilton Street
Regina, Saskatchewan
S4P 4V4
(306) 565-2526

Manitoba
Environmental Protection Service
Environment Canada
800, 275 Portage Avenue
Winnipeg, Manitoba
R3B 2B3
(204) 949-2961

Energy Information Centre
Manitoba Energy and Natural Resources
500 Portage Avenue
Winnipeg, Manitoba
R3C 0V8
(204) 944-4154

Northwest Territories
Environmental Protection Service
Environment Canada
Bellanca Building
P.O. Box 370
Yellowknife, N.W.T.
X1A 2N3
(403) 873-3456

Inuvik
(403) 979-2460

Frobisher Bay
(403) 979-3649

St. Albert, Alberta 420-4035
Elsewhere in Alberta (toll-free) 1-800-222-6477

Saskatoon, Saskatchewan 665-4532
Elsewhere in Saskatchewan (toll-free) 1-800-667-9719

Winnipeg, Manitoba 949-4266
Elsewhere in Manitoba (toll-free) 1-800-542-8928

Yellowknife, N.W.T. 920-8475
Elsewhere in NWT (toll-free) dial "Operator" and ask for Zenith 2828

Fuel Consumption Guide. Transport Canada. Available from Public Affairs Branch, Transport Canada, Ottawa, Ontario, K1A 0N5

Free Publications

Air Pollution and Your Car (1980) and Winter Driving (1980). Fact sheets available from the Environmental Protection Service, Environment Canada. Addresses listed above.

The Car Economy Book: How to Buy, Drive and Maintain Your Car to Save Energy and Money (1981). Available from the Office of Energy Conservation, Energy, Mines and Resources Canada.

Public Affairs
Environment Canada
804, 9942 - 108 Street
Edmonton, Alberta
T5K 2J5
(403) 420-2545

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The Workplace

Five out of seven days, for many Canadians, are spent at the workplace. The amount of time spent on the job makes the workplace an important place for activities that contribute to saving the environment.

The principles and practices that can help save the environment at the workplace, whether office or plant, are the same ones followed around the home. There is one important difference: in business and industry the scale of operations is so much larger that the potential environmental benefits are correspondingly more significant. At home we can take our newspapers and old phone books to a community paper bin for recycling; in an office building, hundreds of tonnes of waste paper can be recovered each year and turned into a new product.

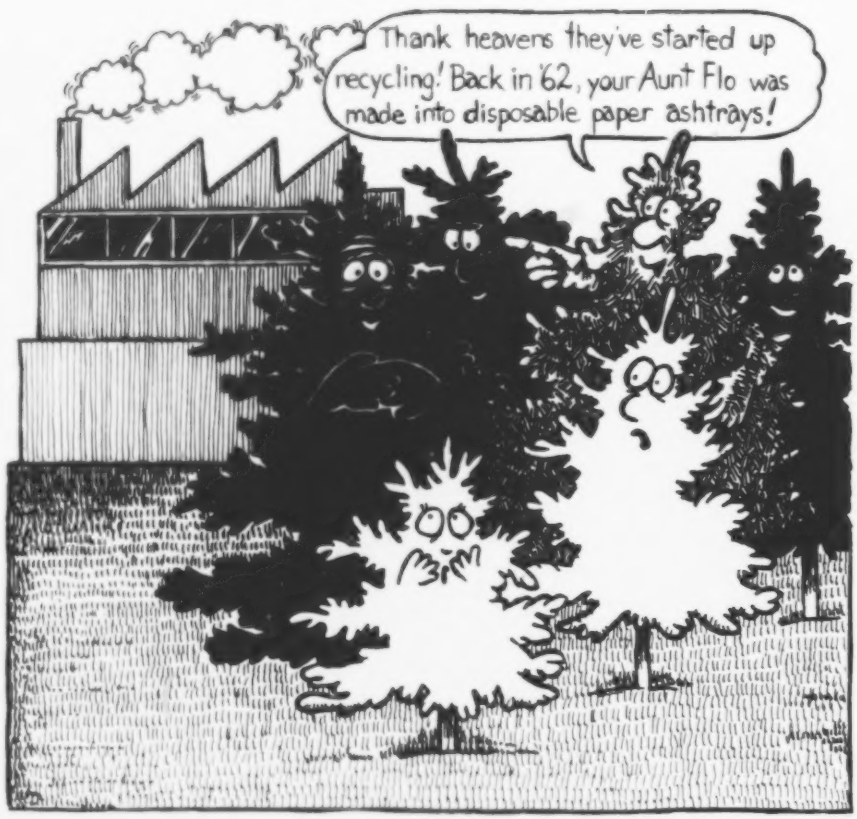
Just as in the home, environmentally responsible behavior starts with awareness, your own and your colleagues'. You might want to set up an environmental education corner in your cafeteria or employee rest area. A corkboard for pinning up clippings and articles, with a pouch to hold brochures and pamphlets, will do the trick. Environmental films can be shown at noon: the National Film Board will provide them free. If your union has an environmental committee you could invite a member to address your group on current environmental issues.

Recycling

The advantages to recycling around the home can be multiplied many times on the job, because of the greater number of people who can participate and the wealth of potentially recyclable material.

Employees can recycle. A recycling depot or drop-off for cans and bottles can be established, and the proceeds used for office projects. A research establishment in Edmonton, for example, conducts a year-round bottle drive. Employees drop off bottles brought from home, and the profits go to financing the annual children's Christmas party.

The materials used in an office or plant may offer large-scale recycling opportunities. In an office, paper is the prime candidate. It can be separated from other waste very easily by giving employees special receptacles. At the Government of Canada Building in Calgary, a paper recycling program was instituted by the Environmental Protection Service with the help of a federal grant. At first, participation was low, but within a year, most of the 2000 employees in the building were taking part. (Indeed, most people are willing and even pleased to recycle items, if they are offered the opportunity to do so.) Now each year some 2600 tonnes of paper are collected, or enough to save 4420 trees. Today the paper recycling program is completely self-supporting; in fact, it has created seven full-time jobs for previously unemployed handicapped persons who collect, sort, and shred the paper.



The University of Alberta earns $20,000 per year by selling its waste paper and saves the same amount again in lower waste disposal costs.

Industrial processes offer many more opportunities for recycling. The manufacture of goods usually creates by-products. If the by-products cannot be recycled within the plant they become unwanted waste that must be disposed of, but they *may* provide valuable raw material for another industry. It's a question of putting generators of waste in touch with processors who need it. In 1978 the Canadian Waste Material Exchange was established by Environment Canada to do just that. A bimonthly bulletin alerts recycling industries to waste materials produced by other firms that are available for reuse.

Environmental Benefits

The economic benefits of selling waste rather than having to store it or properly dispose of it are equalled by the environmental benefits. The Canadian Association of Recycling Industries estimates that when a steel mill uses processed scrap iron rather than an equal amount of pure iron ore, there is a 97% reduction in mining waste, an 86% reduction in air pollution, and a 76% reduction in effluents that pollute water.

Use of recycled material instead of raw resources also cuts energy consumption dramatically. When the paper collected from the Government of Canada Building in Calgary is made into newsprint, 50% less energy is consumed than when raw materials are used. There is a 74% energy saving in the manufacture of steel, a 90% saving in the manufacture of copper, and a 95% saving in the manufacture of aluminum when recycled scrap is used. Put another way, using 1 million tons of scrap steel saves 2.5 million barrels of oil.

Reprocessing scrap metals, newsprint, and other by-products also greatly reduces the amount of waste, some of it toxic, going into landfills and extends the life of landfills.

If valuable materials in your workplace are not being recycled, suggest to management that recycling and waste exchange be investigated for their economic and environmental pay-offs. Almost anything can be considered for recycling: oil, rubber, plastic, metals, old batteries, and so on. Government grants are available to develop new equipment or procedures that reduce waste, recover or recycle waste, and save energy, especially from nonrenewable resources.

Other Things You Can Do

Take a look at the daily operations of your workplace with a view to their environmental impact, just as you would at home. Some suggestions:

- Get the most out of stationery. Use both sides of each sheet of paper and use large envelopes more than once. Encourage the purchase of recycled paper.
- Where possible, turn off lights and appliances that are not being used.
- If heating costs are high, suggest that a professional energy audit be performed to identify ways of reducing heat loss. In Alberta, businesses and industrial plants can get a free inspection by the Energy Bus, equipped with a minicomputer and instruments to measure heat loss.
- Encourage the purchase of durable, repairable goods and energy-efficient appliances.
- Be on the lookout for signs of waste, such as unnecessary paperwork, equipment and machinery that are not used, leftover food in the cafeteria.
- Suggest to the union or the employer that car pools or van pools be organized to cut down on employees' transportation costs and reduce air pollution.
- Industrial waste that cannot be recycled or exchanged should be safely disposed of so that it does not contaminate soil, water, or air. Contact federal or provincial environment officials for advice on proper disposal methods.

Even if you are not directly responsible for waste disposal, purchasing, or energy conservation at your place of work, you can get the ball rolling. The workplace offers abundant and significant possibilities for saving money, natural resources, and energy at the same time as cutting down air pollution, water pollution, and landfill waste.

Contacts

Alberta
Waste Management Branch
Pollution Control Division
Alberta Environment
9820 - 106 Street
Edmonton, Alberta
T5K 2J6
(403) 427-5868

Energy Conservation Branch
Alberta Energy and Natural Resources
10010 - 106 Street
Edmonton, Alberta
T5J 3L8
(403) 427-5200
(Information on the energy audit for business or industry by the Energy Bus)

Environmental Protection Service
Environment Canada
804, 9942 - 108 Street
Edmonton, Alberta
T5K 2J5
(403) 420-2580

Saskatchewan
Waste Management Division
Saskatchewan Environment
1855 Victoria Avenue
Regina, Saskatchewan
S4P 3V5
(306) 565-6259

Environmental Protection Service
Environment Canada
241, 1901 Victoria Avenue
Regina, Saskatchewan
S4P 3R4
(306) 359-6464

Manitoba
Waste Management Division
Manitoba Environment
Building 2, 139 Tuxedo Avenue
Winnipeg, Manitoba
R3N 0H6
(204) 944-7083

Environmental Protection Service
Environment Canada
800, 275 Portage Avenue
Winnipeg, Manitoba
R3B 2B3
(204) 949-2961

Northwest Territories
Government of the Northwest Territories
Pollution Control Division
Department of Renewable Resources
Yellowknife, N.W.T.
X1A 2L9
(403) 920-8044

Environmental Protection Service
Environment Canada
Bellanca Building
P.O. Box 370
Yellowknife, N.W.T.
X1A 2N3
(403) 873-3456

Inuvik - (403) 979-2460

Frobisher Bay - (403) 979-3649

Other
Canadian Waste Material Exchange
Ontario Research
Sheridan Park Research Community
Mississauga, Ontario
L4K 1B3
(416) 822-4111

DRECT Program
Technical Services Branch
Environmental Protection Service
Environment Canada
Ottawa, Ontario
K1A 1C8
(819) 997-3405

DRECT (Development and Demonstration of Resource and Energy Conservation Technology) is a federally sponsored program to reduce waste, recover or recycle waste, and save energy. Private industries, organizations, and provincial and municipal authorities can apply to DRECT for partial funding to develop innovative recycling processes or equipment.

Check your local telephone directory under listings such as "Recycling," "Bottle Depots," "Paper Depots," "Waste Disposal," and "Garbage Collection" for recycling firms in your area.

Public Affairs
Environment Canada
804, 9942 - 108 Street
Edmonton, Alberta
(403) 420-2545

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SAVE·IT!

At Your Leisure

The home, garden, workplace, and family car all offer many opportunities for an individual to select courses of action that either contribute to preserving environmental quality or hasten its degradation. Our leisure time offers the same sort of opportunity. Even when we're relaxing and having fun we can do so in a way that helps save the environment.

The motivation to save the environment — to dig out dandelions by hand rather than spray a pesticide, to walk to the corner store rather than drive — can spring only from an understanding and appreciation of the natural world. The suggestions in the other fact sheets for an environmentally harmonious lifestyle are useless unless there is a public who believes that the environment is worth saving.

We can use our leisure time to increase our own and our children's awareness of the natural environment: its wonders, the subtle interdependence of all parts of an ecosystem, and the importance of the link between the environment and human well-being. We are part of nature too. If we cut ourselves off from our natural roots — either the water, land, and air that sustain us physically or the beauty and rhythm of natural cycles that sustain us emotionally and spiritually — we will suffer just as surely as a plant or animal would.

Outdoor Activities

Approximately 80% of Canadians live in cities, so it is important to get beyond the concrete confines and into the natural world. A good place to start learning about the outdoors is a national or provincial park. Canada's system of national and historic parks, considered among the best in the world, was created to save both representative natural ecosystems such as wetlands and forests and important historic sites. National parks such as Banff, Jasper, and Nahanni preserve Canada's special places of natural beauty and wilderness, while historic parks such as Lower Fort Garry in Winnipeg preserve cultural heritage, taking us back to the era of the fur trade.

National parks, and many provincial parks, have naturalists, interpretation centers, self-guided nature trails, lectures, activities, and publications to help both children and adults understand the plants, animals, terrain, and natural processes at work within the park. Be sure to take advantage of them when you visit.

Nature in the City

It's not necessary to range far afield to enjoy nature and wildlife. You are the custodian of a special piece of nature, your backyard, which provides a home for a myriad of living organisms. At your leisure you and your children can explore your backyard to find out what type of life inhabits it and what kind of food and cover it offers.

Planting a flower and vegetable garden in the spring can beautify your yard, allow you to put fresh, chemical-free vegetables on your table, and provide an occasion to discuss with your children the cycle of growth, decay, and new life and the roles of soil, water, sunlight, earthworms, insects, and predators.

You can teach your children to identify tree species in your neighborhood and in the fall collect leaves and make leaf prints. In the winter birds can use a helping hand because food supplies are scarce. You can provide a feeding station to help nourish birds and also provide opportunities for bird study and wildlife photography. The Canadian Wildlife Service has a free publication on how to construct bird feeders. For many more suggestions on outdoor educational activities suitable for your back yard, consult books at the library, and also make use of the library's resources for educating yourself. There's a wealth of information available on all facets of the environment.

There are many other facilities within the city, in addition to libraries, where you can learn about nature and expose your children to its fascinations. The John Jan-

zen Nature Center in Edmonton, for instance, offers various short courses on natural history and environmental topics such as "Sketching Nature", "Environmental Law", and "Feeding Birds in Winter". You can also visit the center simply to browse through the many exhibits or go on a guided nature walk.

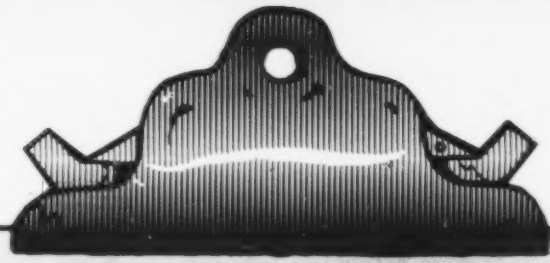
The Museum of Natural History in Regina is another good example. It offers habitat displays that depict prairie wildlife in natural settings, educational films, lectures, and children's programs.

The National Film Board, which has offices in major prairie cities, offers films on environmental topics that may be borrowed free. "Acid Rain, Requiem or Recovery" and "Bears and Man" are popular ones.

Other Things You Can Do

- Subscribe to Canadian magazines about natural history and the outdoors such as *Canadian Geographic*, *Equinox*, and *Nature Canada* for adults, *Owl* for children eight years old and over, and *Chickadee* for children under eight years. The children's magazines are filled with enjoyable activities that teach children about nature.
- Avoid motorized sports such as skidooing and speedboating in favor of less polluting activities such as hiking and cross-country skiing.
- Make nature-oriented outdoor activities such as bird watching, wildlife photography, animal study, or stargazing a family hobby.
- Add an extra dimension to family sports or activities such as camping, hiking, and canoeing by learning about the terrain and plant and animal life you will see before you set out. There are many good guides to wild flowers, edible plants, wildlife, etc. available.
- When you travel the Trans-Canada Highway, be sure to pick up a Canadian Forestry Service ecotour booklet that covers your journey. Ecotours describe historical points of interest and environmental features such as landforms and wildlife that you can see from your car.

Nature rambles out of doors, browsing through natural history books in the library, exploring a national park, and building a bird feeder are excellent ways for a family to spend time together. Some of the more vigorous activities also contribute to good physical fitness. Above all, such activities instill appreciation for all forms of life on the planet. It is critical to create in our children an understanding of man's place in the environment, so that their generation, and future ones, will be committed to environmental conservation.



Contacts

It is not possible to list all of the municipal, provincial, and national parks, museums, nature centers, and science centers in Western and Northern Canada. Tourism and parks officials, however, will be pleased to provide details about what's available in your area.

Alberta
Travel Alberta
12th Floor
Capitol Square
10065 Jasper Avenue
Edmonton, Alberta
T5J 0H4
(403) 427-4321

Alberta Recreation and Parks
Standard Life Centre
10405 Jasper Avenue
Edmonton, Alberta
T5J 3N4
(403) 427-9429

Edmonton Parks and Recreation
10th Floor
CN Tower
Edmonton, Alberta
T5J 0K1
(403) 428-3559

Parks Canada
Public Affairs
P.O. Box 2989
220 - 4th Avenue S.E.
Calgary, Alberta
T2P 3H8
(403) 231-4745

Parks and Recreation Department
City of Calgary
P.O. Box 2100
Calgary, Alberta
T2P 2M5
(403) 268-5211

Saskatchewan
Saskatchewan Tourism and Renewable Resources
3211 Albert Street
Regina, Saskatchewan
S4S 5W6
(306) 565-2300

Parks and Recreation
City of Regina
P.O. Box 1790
City Hall
Regina, Saskatchewan
S4P 3C8
(306) 569-7350

Wascana Authority
P.O. Box 7111
Regina, Saskatchewan
S4P 3S7
(306) 522-3661

Parks and Recreation Board
City Hall
Saskatoon, Saskatchewan
S7K 0J5
(306) 664-9200

Prairie Wildlife Interpretation Centre
P.O. Box 10
Webb, Saskatchewan
(306) 674-2287

Parks Canada
4th Floor
391 York Avenue
Winnipeg, Manitoba
R3C 4B7
(204) 949-2110

Manitoba
Public Information Services
Manitoba Department of Natural Resources
Box 22, 1495 St. James Street
Winnipeg, Manitoba
R3H 0W9
(204) 944-6784

Parks and Recreation Department
City of Winnipeg
2799 Roblin Boulevard
Winnipeg, Manitoba
R3R 0B8
(204) 885-1500

Parks Canada
4th Floor
391 York Avenue
Winnipeg, Manitoba
R3C 4B7
(204) 949-2110

Northwest Territories
Travel Arctic
Government of the N.W.T.
Yellowknife, N.W.T.
X1A 2L9
(403) 873-7200

Parks Canada
4th Floor
391 York Avenue
Winnipeg, Manitoba
R3C 4B7
(204) 949-2110

Other
To book a film, contact the National Film Board in Edmonton, Calgary, Regina, Saskatoon, or Winnipeg.

Free Publications

Bird Feeders (1973) and Nest Boxes for Birds (1977). Canadian Wildlife Service, Environment Canada. Available from Public Affairs (address below).

Calgary-Golden Ecotour (1974), Calgary-Regina Ecotour (1978), and Regina-Winnipeg Ecotour (1980). Available from
Canadian Forestry Service
Environment Canada
5320 - 122 Street
Edmonton, Alberta
T6H 3S5
(403) 435-7210

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Environment Canada
804, 9942 - 108 Street
Edmonton, Alberta
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(403) 420-2545

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Get Involved

If you are concerned about an environmental issue, take up your pen or telephone and let others know how you feel. Public pressure can be a potent force in shaping government and corporate policy and behavior.

Dear Sir . . . .

One of the best ways to express your concern is by writing to the company or government department responsible. Don't be dissuaded by the thought that one letter can't accomplish anything. Even if it takes the organization a long time to reply, or its reply isn't satisfactory to you, your letter will have had some effect. Politicians and large companies are concerned about keeping in touch with what the public thinks, and they often rely on their mail as an indication of public attitudes.

You will have most effect if you write directly to the person at the top, whether minister of a government department or president of a company, and ask a specific question that necessitates a reply or make a suggestion that can't be left unrefuted. Keep the letter brief and confine it to one topic; write separate letters for other issues. Give reasons for your position on an issue. If you are writing to a federal minister or member of parliament at the House of Commons when it is in session, your letter does not require a stamp.

Remember that it is just as important to express support for actions or policies that you agree with as it is to criticize those that you disapprove of.

Letters to the editor of your newspaper can also be effective. They reach many other readers and can perhaps get them involved in the issue. As well, government departments and large companies often clip and circulate articles, columns, and letters in the daily press in order to get a reading of public opinion.

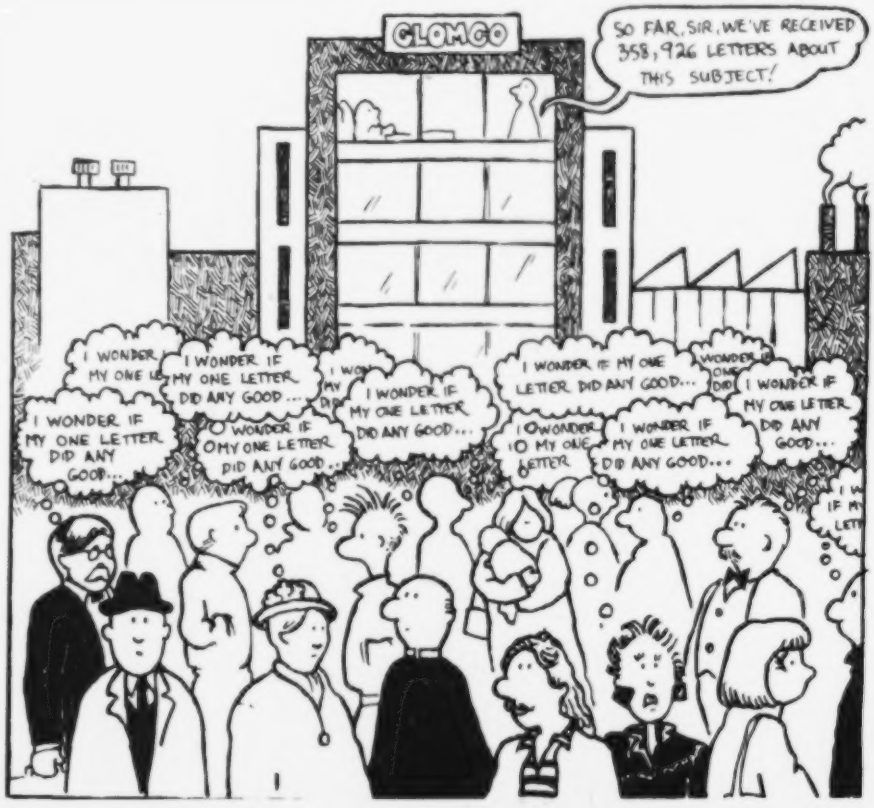
Strength in Numbers

Joining a public interest environmental group is a good way of educating yourself about environmental issues, perhaps increasing your appreciation and enjoyment of the natural environment, and making your voice heard in support of environmental causes. There are many kinds of organizations with an interest in the environment, all the way from fish and game associations to lobbies formed around a specific issue such as acid rain. Such groups usually keep their members informed by means of regular meetings and newsletters, lobby for their particular interests by submitting briefs to politicians, and increase public awareness of their issues. Journalists often seek comments from representatives of such groups when new government policies are announced, giving an opportunity for a group to make its views known.

If there isn't already a group interested in your issue, whether it's saving the peregrine falcon or combatting pollution in your neighborhood, consider starting one yourself. Your neighbors may be just as interested as you in organizing and pressing for action. If you don't know how to start, get in touch with an existing group for information on how to get off the ground.

First Information, Then Action

Joining an environmental group is probably the best way to stay on top of developments in the field that interests you. However, you can also put your name on the mailing lists for the abundance of free information that government agencies and industries supply. Take advantage of the opportunities that some government departments provide for the public to have a voice in decision-making and policy-setting: public advisory boards, public hearings, and public consultation meetings. Environment Canada, for example, holds public consultation meetings once a year in major cities to obtain public comment on its policies and programs.


CLOMCO
SO FAR, SIR, WE'VE RECEIVED 358,926 LETTERS ABOUT THIS SUBJECT!
I WONDER IF MY ONE LETTER DID ANY GOOD...
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If it is specific information from a *federal* government department that you need to make a case or prepare a brief, the Access to Information Act can help you. This law gives you a legally enforceable right to most of the information held by federal government departments. By consulting the *Access Register* available in all post offices you can determine which department may have the information you seek. There's a $5 application fee, and you may have to pay for copying costs if they're over $25. But before filing an application under the Act, try contacting the department involved to simply ask for the information. You should find someone only too pleased to help you, for free.

What Good does Public Pressure Do?

Public concern can change the course of policy and even put new legislation on the books. The passage of the federal Environmental Contaminants Act was the direct result of concern expressed by the public and media over the problem of polychlorinated biphenyls (PCBs). This act, passed in 1975, allows the banning of toxic substances in order to protect human health and the environment. PCBs, for example, were banned in new electrical equipment in 1980 and eventually will be prohibited from all uses.

The marketplace also responds to public opinion. In the 1980s it became evident that the chlorofluorocarbons used as propellents in spray cans were depleting the layer of ozone that helps protect us from damaging ultraviolet rays of the sun. Awareness of this danger, promoted by the media, convinced consumers to turn away from spray products so decidedly that manufacturers were quickly forced to bring out nonaerosol containers. The use of chlorofluorocarbons as propellants in deodorant and hairspray aerosols was banned under the Environmental Contaminants Act in 1980, but public awareness had already brought about the disappearance of most such products from store shelves.

It's probably easier to effect change at the local level. A few examples:

Residents of Ottawa who were concerned about the use of the pesticide 2,4-D in local parks and playgrounds were successful in getting the city to suspend the use of the pesticide for two years, and instead try controlling weeds by digging them out and by keeping lawns healthy enough to deter weeds.

In Calgary, conservation groups pointed out that the Olympic Organizing Committee had omitted any consideration of possible environmental side effects resulting from facilities and competitions during the 1988 Winter Olympics. The Organizing Committee met with environmental groups and then established an environmetal advisory body for the Olympics.

When a wetland area west of Edmonton that was the home of rare orchid species was threatened by the construction of a road, biologists and nature lovers who used the bog for study and enjoyment decided to try to save it. Supported by local residents, they held a public meeting and lobbied the county council. The proposed road was postponed. The bog's rescuers incorporated as a nonprofit society, obtained a 21-year lease to manage the natural area as a wildland, and have begun to develop a trail and educational program so that the public may enjoy the rich variety of plant life.

Not only bogs can be saved. An educated and committed public can become a powerful constituency in support of environmentally concerned political leaders. It can sway the policies of governments and corporations. And the opportunity to contribute suggestions for improving environmental quality is open to everyone.

Contacts

Addresses and phone numbers of provincial and territorial environment ministers may be found in the phonebook. The federal minister of the environment can be reached at The House of Commons, Ottawa, Ontario, K1A 0A6.

Listed below are some representative environmental groups. The list is by no means exhaustive, just a start. There is also a national network of environmental groups. To obtain the name of your provincial or territorial network representative, or information about public consultation meetings, contact the Environment Canada Public Affairs office.

Alberta

Alberta Wilderness Association
P.O. Box 6398
Station "D"
Calgary, Alberta
T2P 2E1

Environmental Law Centre
411, 10201 - 104 Street
Edmonton, Alberta
T5J 1B2

Federation of Alberta Naturalists
P.O. Box 1472
Edmonton, Alberta
T5J 2N5

Alberta Fish & Game Association
8420 - 134A Avenue
Edmonton, Alberta
T5E 1L7

Environmental Resource Centre
10765 - 98 Street
Edmonton, Alberta
T5H 2P2
(Prepares an environmental newsletter and is a source of information about most environmental groups in western and northern Canada.)

Prairie Acid Rain Coalition
Box 1288
Rocky Mountain House, Alberta
T0M 1T0

Saskatchewan

Saskatchewan Environmental Society
P.O. Box 1372
Saskatoon, Saskatchewan
S7K 2N9

Saskatchewan Natural History Society
P.O. Box 1784
Saskatoon, Saskatchewan
S7K 3S1

Regina Group for a Non-Nuclear Society
2138 McIntyre Street
Regina, Saskatchewan
S4P 2R7

Inter Church Uranium Committee
P.O. Box 7724
Saskatoon, Saskatchewan
S7K 4R4

Saskatchewan Alliance for a Natural Environment
P.O. Box 6, Site 7,
R.R. #1
Shellbrook, Saskatchewan
S0J 2E0

Manitoba

Crossroads Resource Group
P.O. Box 1436
Winnipeg, Manitoba
R3C 2Z4

Manitoba Naturalists' Society
214, 190 Rupert Avenue
Winnipeg, Manitoba
R3B 0N2

Sierra Club of Western Canada
206 Aubrey Avenue
Winnipeg, Manitoba
R3G 2J1

Action Committee Against Garrison
P.O. Box 689
Arborg, Manitoba
R0C 0A0

Conserver Action
P.O. Box 1327
Brandon, Manitoba
R7A 6N2

Northwest Territories

Ecology North
P.O. Box 2888
Yellowknife, N.W.T.
X1A 2R2

Pelican Portage Group Inc.
P.O. Box 685
Fort Smith, N.W.T.
X0E 0P0

Slave River Basin Coalition
P.O. Box 930
Fort Smith, N.W.T.
X0E 0P0

Public Affairs
Environment Canada
804, 9942 - 108 Street
Edmonton, Alberta
T5K 2J5
(403) 420-2545

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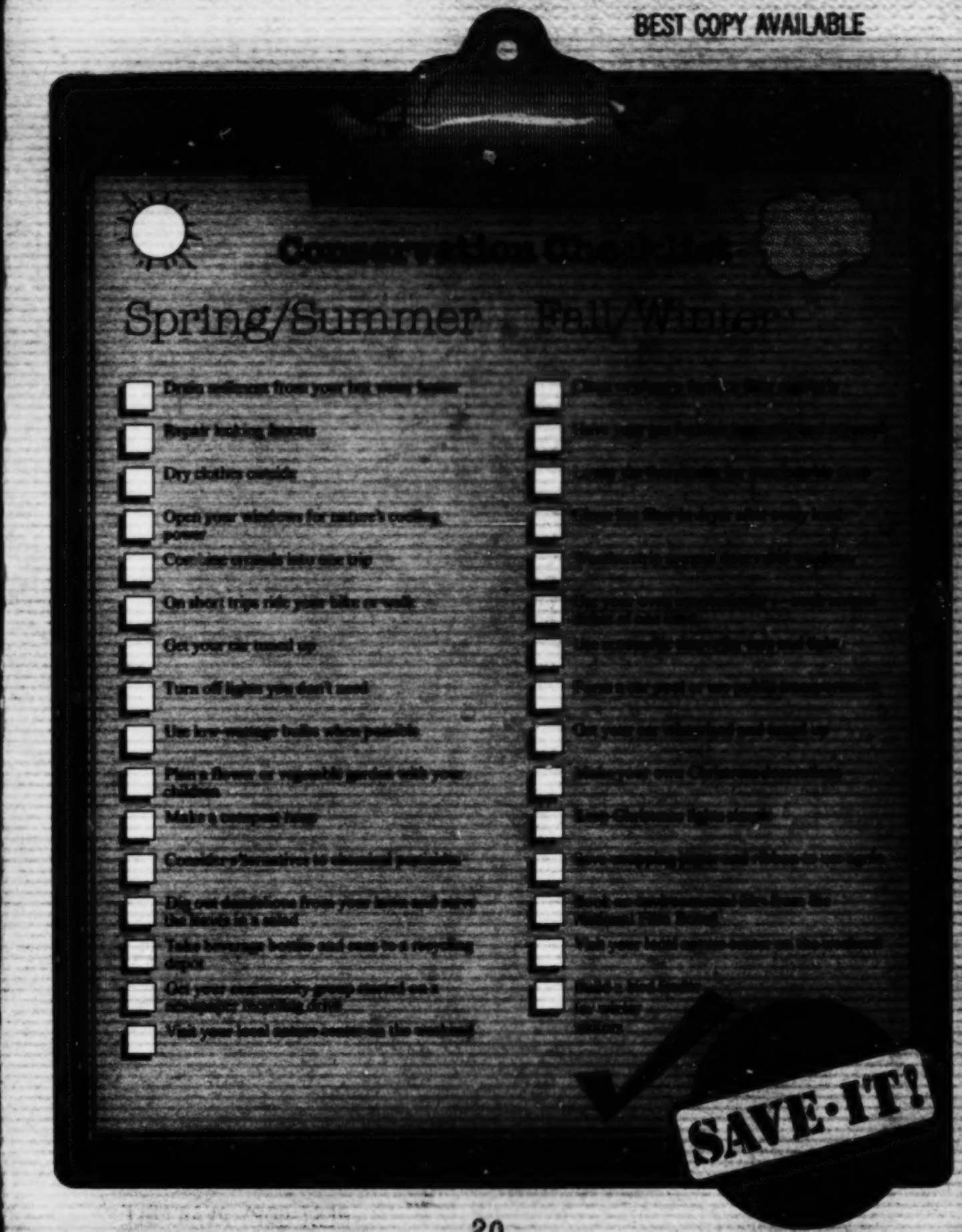
Conservation Checklist
Spring/Summer
Fall/Winter
Drain sediment from your hot water heater
Repair leaking faucets
Dry clothes outside
Open your windows for nature's cooling power
Combine errands into one trip
On short trips ride your bike or walk
Get your car tuned up
Turn off lights you don't need
Use low-wattage bulbs where possible
Plant a flower or vegetable garden with your children
Make a compost heap
Consider alternatives to chemical pesticides
Dig out dandelions from your lawn and serve the leaves in a salad
Take beverage bottles and cans to a recycling depot
Get your community group started on a newspaper recycling drive
Visit your local nature centre on the weekend
SAVE·IT!

How's Your Environmental Awareness?

1 I try to be aware of the effects of my actions on the environment and to minimize them
- ____ a) yes
- ____ b) no

2 When I stop my car, I turn off the motor
- ____ a) right away
- ____ b) not at all
- ____ c) if I have to wait more than 5 minutes

3 When I have an errand to do that's less than a kilometre in distance I travel
- ____ a) on foot or by bicycle
- ____ b) in my car

4 I travel to work
- ____ a) on foot or by bicycle
- ____ b) alone in my car
- ____ c) on public transit
- ____ d) with others in a car (theirs or mine)

5 For recreation I
- ____ a) do not use skidoos, trail bikes, or motorboats
- ____ b) do use these items

6 I forget leftover food in my refrigerator
- ____ a) never
- ____ b) often
- ____ c) rarely

7 I take my own coffee mug to work instead of using disposable cups each day
- ____ a) yes
- ____ b) no

8 I use electric toothbrushes, can openers, and knives
- ____ a) never
- ____ b) often
- ____ c) occasionally

9 I return beverage cans and bottles to recycling depots
- ____ a) always
- ____ b) never
- ____ c) from time to time

10 I am careful to turn taps off and ensure that taps don't drip and toilet tanks don't leak
- ____ a) yes
- ____ b) no

11 During winter I set my thermostat
- ____ a) less than 19°C during the day and lower at night
- ____ b) high all the time
- ____ c) high during the day, a little lower at night

12 I save newspapers and glass bottles and take them to a recycling depot
- ____ a) both newspapers and glass
- ____ b) neither
- ____ c) one or the other

13 I use the blank sides of printed sheets as scratch pads
- ____ a) yes
- ____ b) no

14 I reuse paper bags and plastic containers
- ____ a) yes
- ____ b) no

15 I take my own bags to the grocery store to carry home my groceries
- ____ a) yes
- ____ b) no

16 I grow at least some of the fresh vegetables I serve
- ____ a) yes
- ____ b) no

17 I have written a letter to a minister, MP, MLA, or city politician about an environmental problem
- ____ a) yes
- ____ b) no

18 I have written a letter to a newspaper supporting public transit, parks, or environmental protection
- ____ a) yes
- ____ b) no

19 I have taken part in a demonstration in the interest of safeguarding the global or local environment
- ____ a) yes
- ____ b) no

20 I am a member of one or more public interest environmental groups
- ____ a) yes
- ____ b) no

Your Score: Score yourself this way: every a = 3 points; b = 0 points; c = 2 points; d = 1 point.

0-24 There are lots of things you can start doing. Refer to the fact sheets inside for suggestions or else

You won't . . . SAVE·IT!

25-45 You've taken the important first steps. Expand your conservation activities and

You might . . . SAVE·IT!

over 45 Keep up the valiant effort: Be a living example that

You can . . . SAVE·IT!

In Alberta-- used lube oil can be dropped off for recycling at any gas station with this sign.

THIS IS AN OIL DROP LOCATION

Alberta
ENVIRONMENT

A DECLARATION OF INTERDEPENDENCE

"We the peoples of Canada, cognizant of our citizenship in the global village and of the fact that humankind is an integral part of the natural environment on which we depend for life itself and with which we continuously interact, declare our resolve to so manage our affairs that we do not needlessly interfere with the continued enjoyment and use of the natural environment, nor impair the rights of future generations to exist in a world fit to live in, nor the rights of other species to their own processes of natural evolution."

Charles Caccia, Minister of the Environment
December 2, 1983

CANADIAN ENVIRONMENT WEEK
SEMAINE CANADIENNE DE L'ENVIRONNEMENT

Celebrate - Environment Week & World Environment Day - JUNE 5 Every Year!

The Save-It Kit was produced by:

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~~Edmonton, Alberta~~
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~~(403) 420-2545~~

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THIS SYMBOL INDICATES A RECYCLED PRODUCT — CONVEYS THE INFINITE USE AND RE-USE OF SOLIDS, LIQUIDS, OR GASES!

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